The impact of the LNG project on employment and skills development

PNG UPDATE

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Methodology

1. Consultations with stakeholders including with
   - Exxon, Total and Oil Search;
   - Recruitment agencies;
   - Training institutions;
   - DLIR;

2. Analysis of PNG’s work permit legislation and work permit data;

3. Analysis of publicly available LNG project related documents.
Background to the PNG LNG

- The largest project ever done in PNG;
- A joint venture in which Exxon holds 33.2% of interest, Oil Search 29%, plus various others;
- Project is operated by Esso Highlands Ltd, a subsidiary of Exxon Mobil Corporation;
- Construction phase of pipelines and gas plants lasted for four years: 2010-2013;
- Very contrasting views about the benefits the project has so far brought to PNG.
Formal private sector employment

Employment of non-citizens: National trend

Number of work permits issued, 2000 to 2014

Source: DLIR, annual work permit data
PNG’s work permit policy: background

- Non-citizens need valid work permit to work in PNG’s private sector;
- Traffic light system of occupations;
- Language and professional registration requirements;
- Skills transfer requirement.
Employment in the LNG project: Geographical source of labour

1st priority: PNG citizens originating from within the local Representative Landowner Company area

2nd priority: PNG citizens from the overall Project Impact Area

3rd priority: PNG citizens from the 4 provinces of the PIA and the National Capital District

4th priority: PNG citizens from elsewhere in PNG

Last priority: Non-PNG citizens from overseas – only for positions open to foreigners
LNG project workforce

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total workforce (employees + contractors)</td>
<td>5,719</td>
<td>14,376</td>
<td>21,220</td>
<td>14,749</td>
<td>2,178</td>
</tr>
<tr>
<td>Non-Citizen employees</td>
<td>1,155</td>
<td>5,812</td>
<td>12,799</td>
<td>9,149</td>
<td>641</td>
</tr>
<tr>
<td>National employees</td>
<td>4,564</td>
<td>8,564</td>
<td>8,421</td>
<td>5,600</td>
<td>1,537</td>
</tr>
<tr>
<td>Male Employees</td>
<td>No data</td>
<td>13,359</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Female employees</td>
<td>No data</td>
<td>1,017</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

Source: Data provided by Exxon.
Skill shortages and availability during construction

- Workforce skills crucial due to high risks associated with gas plants;
- Mix of lack of skills, experience and/or formal qualifications;
- Skill shortage areas:
  - Managers;
  - Professionals;
  - Senior technicians and technicians (incl. plant room operators/ process technicians).
### Ten Major Occupations of non-citizen work permit holders 2012, compared to 2014

<table>
<thead>
<tr>
<th>Occupation</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technician and Trade Coordinator</td>
<td>3,413</td>
<td>2,434</td>
</tr>
<tr>
<td>Steel fixer</td>
<td>1,455</td>
<td>122</td>
</tr>
<tr>
<td>Machinery Mechanic or Technician</td>
<td>1,274</td>
<td>1,136</td>
</tr>
<tr>
<td>Scaffolder</td>
<td>1,073</td>
<td>188</td>
</tr>
<tr>
<td>Operations Manager</td>
<td>1,062</td>
<td>963</td>
</tr>
<tr>
<td>Sales and Marketing Manager</td>
<td>894</td>
<td>862</td>
</tr>
<tr>
<td>Corporate Services Manager</td>
<td>778</td>
<td>690</td>
</tr>
<tr>
<td>Construction Rigger</td>
<td>743</td>
<td>160</td>
</tr>
<tr>
<td>Structural Steel Erector</td>
<td>674</td>
<td>71</td>
</tr>
<tr>
<td>Fitter</td>
<td>551</td>
<td>4</td>
</tr>
</tbody>
</table>
Other construction-related occupations of non-citizens, 2012 and 2014

<table>
<thead>
<tr>
<th>Occupation</th>
<th>2012</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Fabricator</td>
<td>531</td>
<td>150</td>
</tr>
<tr>
<td>Crane Hoist or Lift Operator</td>
<td>448</td>
<td>116</td>
</tr>
<tr>
<td>Welder</td>
<td>390</td>
<td>35</td>
</tr>
<tr>
<td>Building and Construction Manager</td>
<td>303</td>
<td>325</td>
</tr>
<tr>
<td>Driller</td>
<td>290</td>
<td>180</td>
</tr>
<tr>
<td>Electrician</td>
<td>256</td>
<td>9</td>
</tr>
</tbody>
</table>
Heavy reliance on non-citizens

Controversy:
- Many non-citizens as skilled technicians, engineers, and managerial positions;
- BUT: Exxon also imported some low skilled workers.

Reasons for reliance on non-citizens:
- Poor quality of TVET in PNG (especially at public training institutions);
- According to DHERST, the LNG project took country by surprise and put much pressure on training institutions which were not ready to supply the required skills;
- Work permits were issued without considering the local supply;
- Lack of knowledge of skill supply in PNG;
- No assistance provided to local workers to be matched to vacant positions.
Training and skills development during LNG construction

- Skill development during work on the project, which rarely resulted in sustainable skill development;
- Internal training provided by Exxon;
- Training of three batches of operations and maintenance technicians / plant operators;
- Port Moresby Construction Training Facility / SPEI
Skill shortages and availability today

- Sufficient supply of qualified accountants and executives;
- Enough tradespersons but low quality and insufficient for new project;
- Skill shortage mostly at technician level in oil/gas and mining.
DLIR and the LNG project

- DLIR had no input into arrangements and policies;
- Widespread sense of being overwhelmed;
- Establishment of LNG priority line;
- English language skills internally affirmed by Exxon;
- Various exemptions including under the Employment of Non-Citizens (Amendment) Act;
- The EPC contractors received the same privileges as long as they were cleared through Exxon;
- Introduction of “restricted employment visa”.
Exemptions for the LNG project

SECTION 13 OF EMPLOYMENT OF NON-CITIZENS ACT, 2007:

OCCUPATIONS TO BE ADVERTISED.

(1) The Regulation may prescribe occupations which must be advertised within Papua New Guinea, in relation to which a work permit must be obtained in accordance with this Act.

(2) A work permit shall not be granted to a non-citizen in respect of an occupation prescribed under Subsection (1), until such time as the Secretary is satisfied, that –

(a) the requirement to advertise referred to in Subsection (1) has been complied with; and

(b) there is no suitable citizen who can be employed in the occupation.
Exemptions for the LNG project

2. NEW SECTION 13A.
   The Principal Act is amended by inserting immediately after Section 13 the following new section:
   "13A. EXEMPTION FOR PNG LNG PROJECT."
   "(1) The requirements under Section 13 do not apply to the occupations of non-citizen employees engaged or to be engaged by a PNG LNG Project Company on the PNG LNG Project.
   "(2) Subsection (1) does not apply to occupations of non-citizen employees of agents, contractors or other service providers engaged by a PNG LNG Project Company on the PNG LNG Project."
The Gas Agreement and Exxon’s National Content Plan

- Every big project such as the LNG requires a Project Agreement (Gas Agreement) between the developers and the Government;
- The Gas Agreement sets out the fiscal and economic terms for the LNG Project and is a confidential document;
- According to Exxon, the Gas Agreement incorporates obligations in regards to the training and employment of PNG citizens;
- In 2009, Exxon submitted to the regulator a ‘National Content Plan’ which is publicly available;
- Aims of the National Content Plan: to provide a roadmap for compliance with relevant PNG law and to enhance the benefits of the Project to PNG;
- In terms of workforce development, company is bound by PNG’s legal requirements relating to the employment of PNG citizens and non-PNG citizens and aims wherever possible to fill jobs in Construction and Production with qualified PNG citizens.
Project impact

- Increased awareness of safety issues across all industries;
- New skills and experience of having worked on a large, world-class project;
- Expectation of huge salaries;
- Slow shift in attitudes towards skills training;
- Increased demand for training;
- Former workers were not prepared for end of construction phase and are now registered with recruitment agencies.
Looking ahead: the Papua LNG project

- Construction phase of Papua LNG likely to start in 2019 with Total as major company;
- 2017: negotiations of Gas Agreement between PNG Government and Total;
- Gas Agreement needs to be in place before construction starts;
- Total has to find the former PNG LNG workers;
- Total to enter into agreements with selected training providers with training planned to start in early 2017;
- Together with planned expansion of PNG LNG project, the two projects will be as big as the initial PNG LNG.
THANK YOU